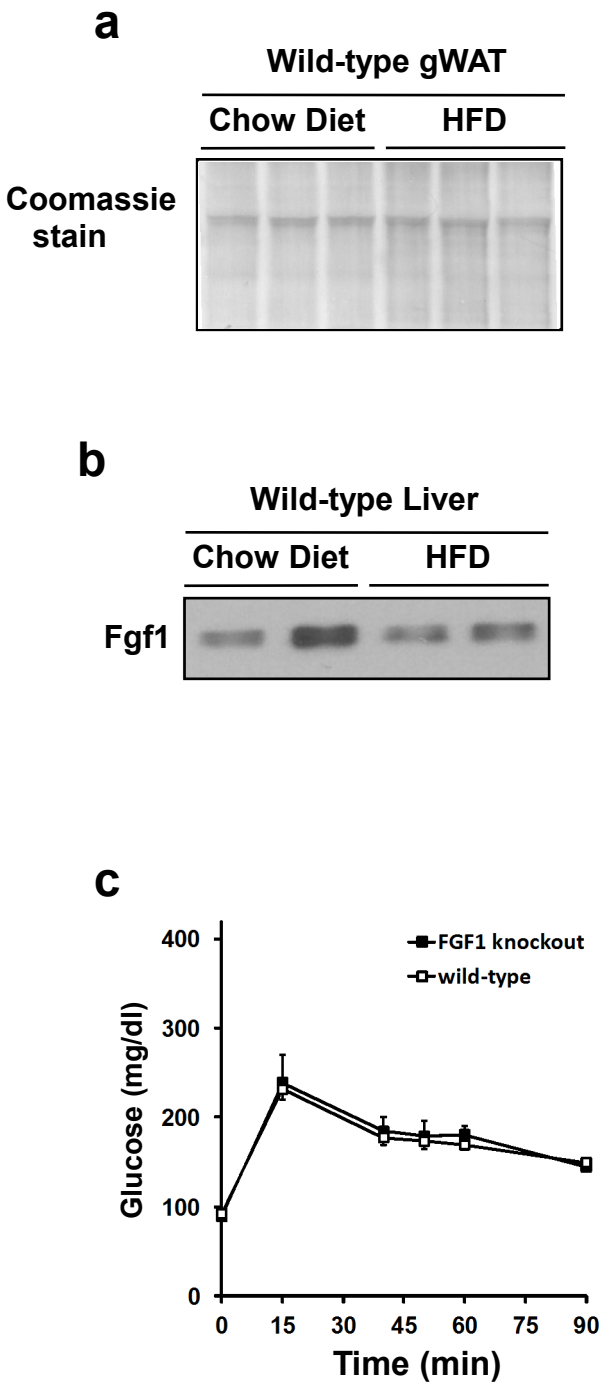
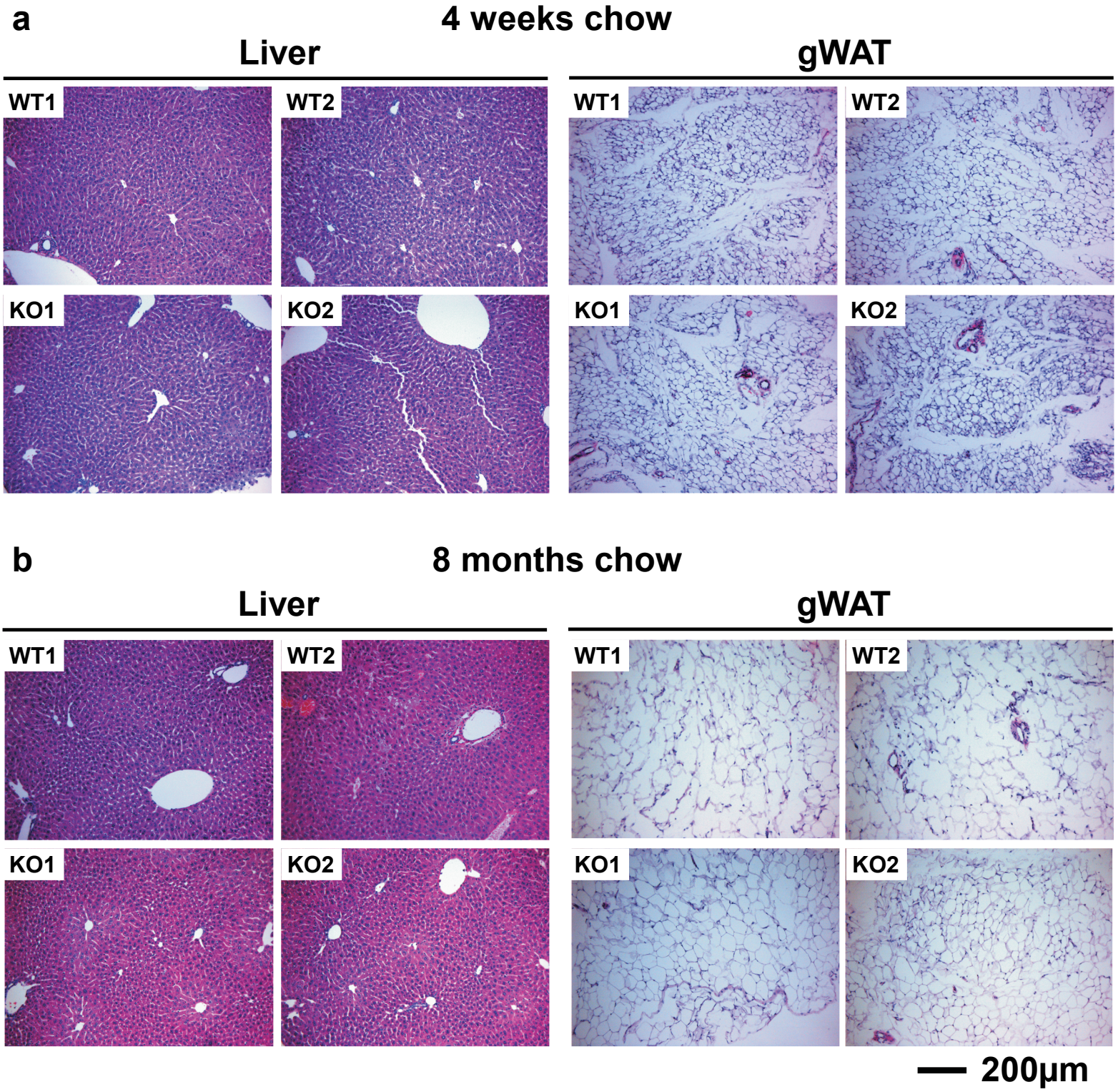
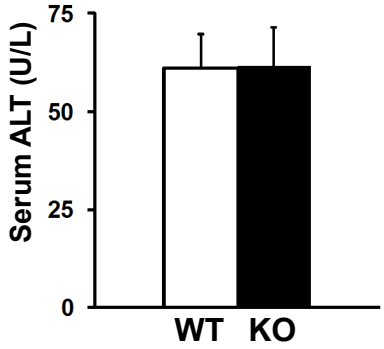


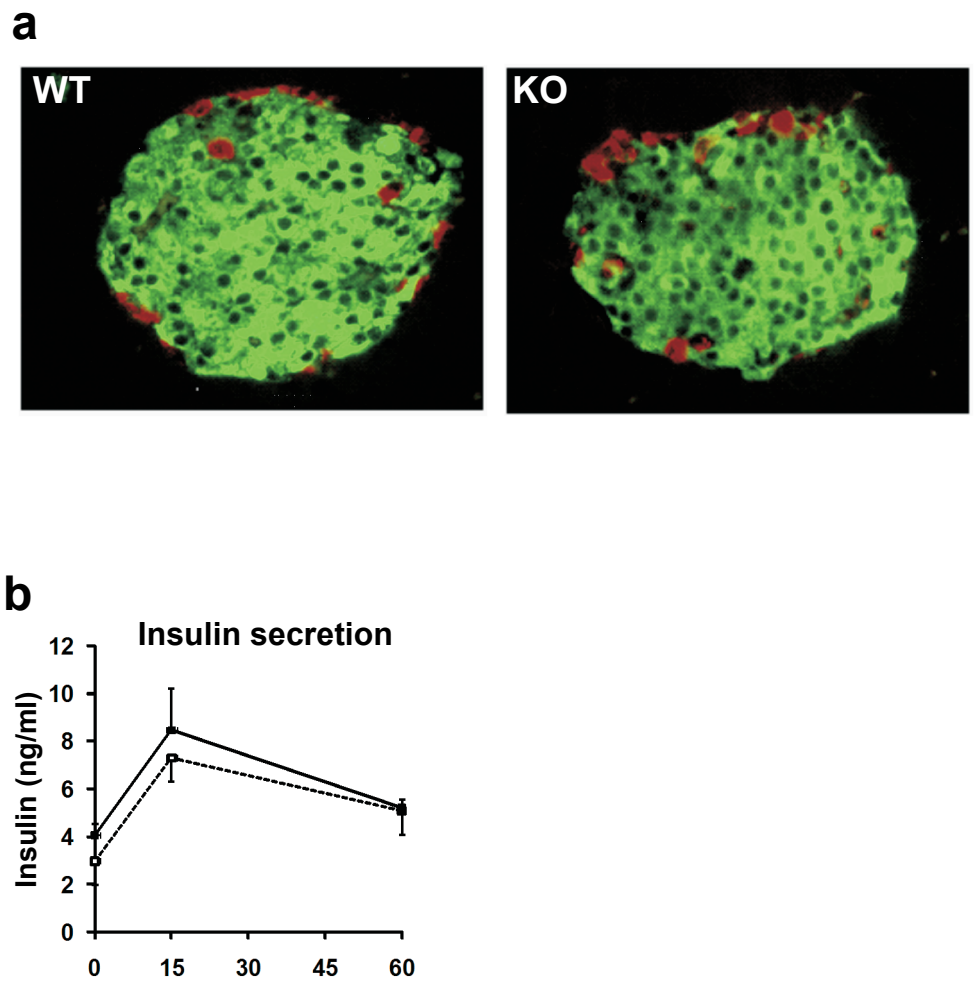
Supplementary Figure 1. (a) Coomassie stain demonstrating equivalent total protein loading of gonadal white adipose (gWAT) extracts from chow or high fat diet-fed wild-type mice.
(b) Western blot of FGF1 in liver of chow or high fat diet-fed wild-type mice.
(c) Glucose tolerance test in male wild-type and FGF1-/- mice on a standard chow diet (males, n = 5).



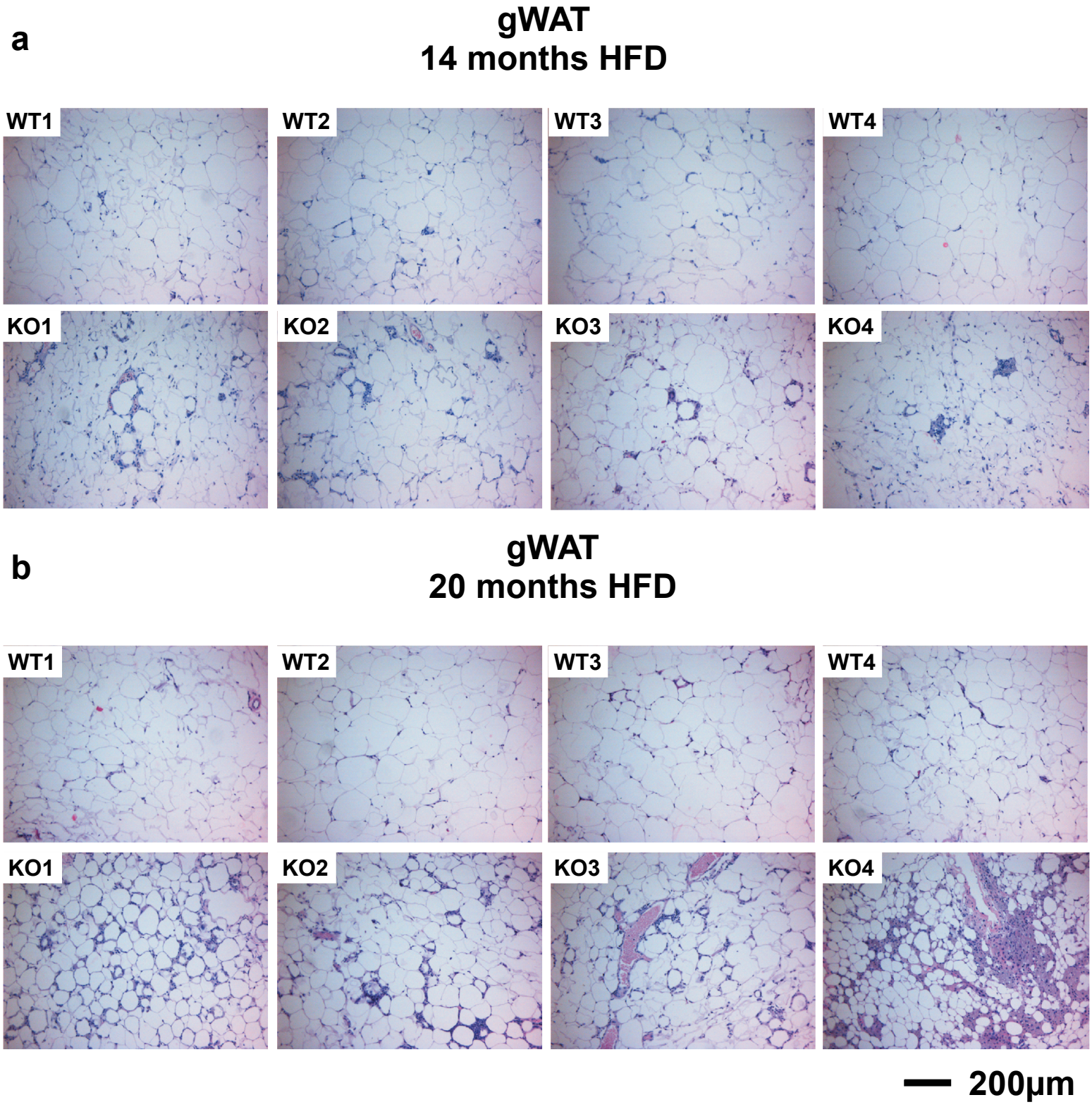
Supplementary Figure 2. H&E staining of liver and gonadal white adipose (gWAT) of (a) 4 week and (b) 8 month old chow fed wild-type and FGF1-/- mice (representative pictures are shown for n = 2). Scale bar = 200 µm.



Supplementary Figure 3. Serum alanine aminotransferase (ALT) levels in HFD-fed FGF1-/- mice compared to wild-type controls (males, 12 months HFD, n = 4).

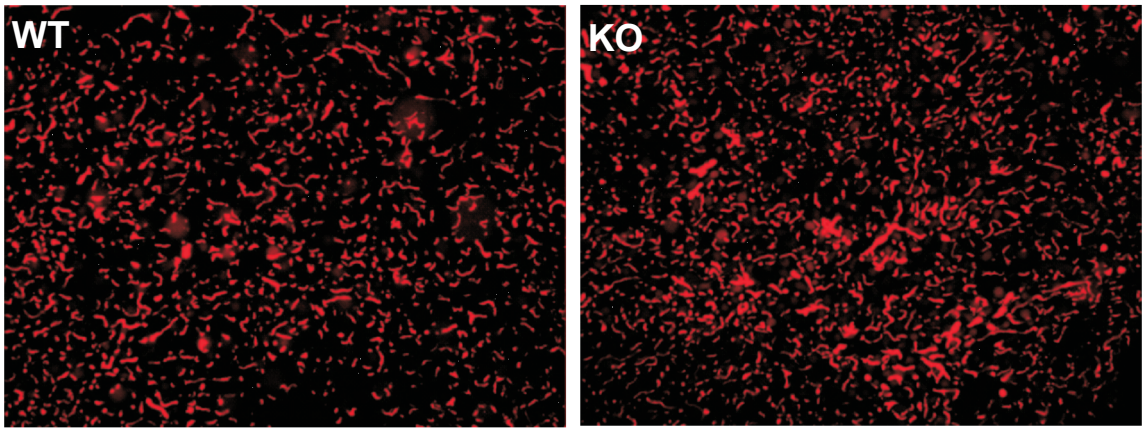


Supplementary Figure 4. Pancreatic islet function and histology. FGF1-/- mice display (a) normal pancreatic islet morphology, organization and immunohistochemistry of insulin (green) and glucagon (red); (b) normal glucose induced insulin secretion (males, 6 months HFD, n = 5).

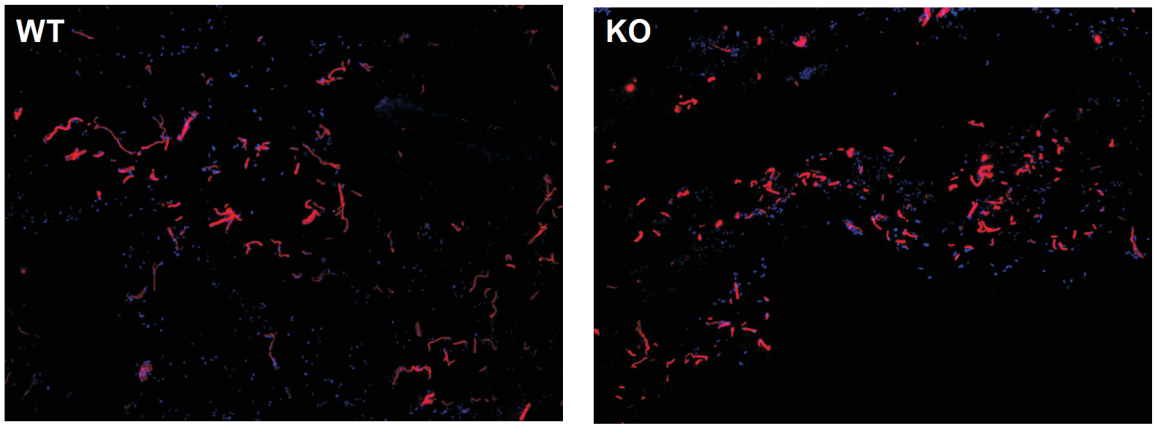


Supplementary Figure 5. H&E staining of gonadal white adipose (gWAT) from wild-type and FGF1-/- mice after (a), 14 months HFD and (b), 20 months HFD (representative pictures are shown for n = 4). Scale bar = 200 µm.

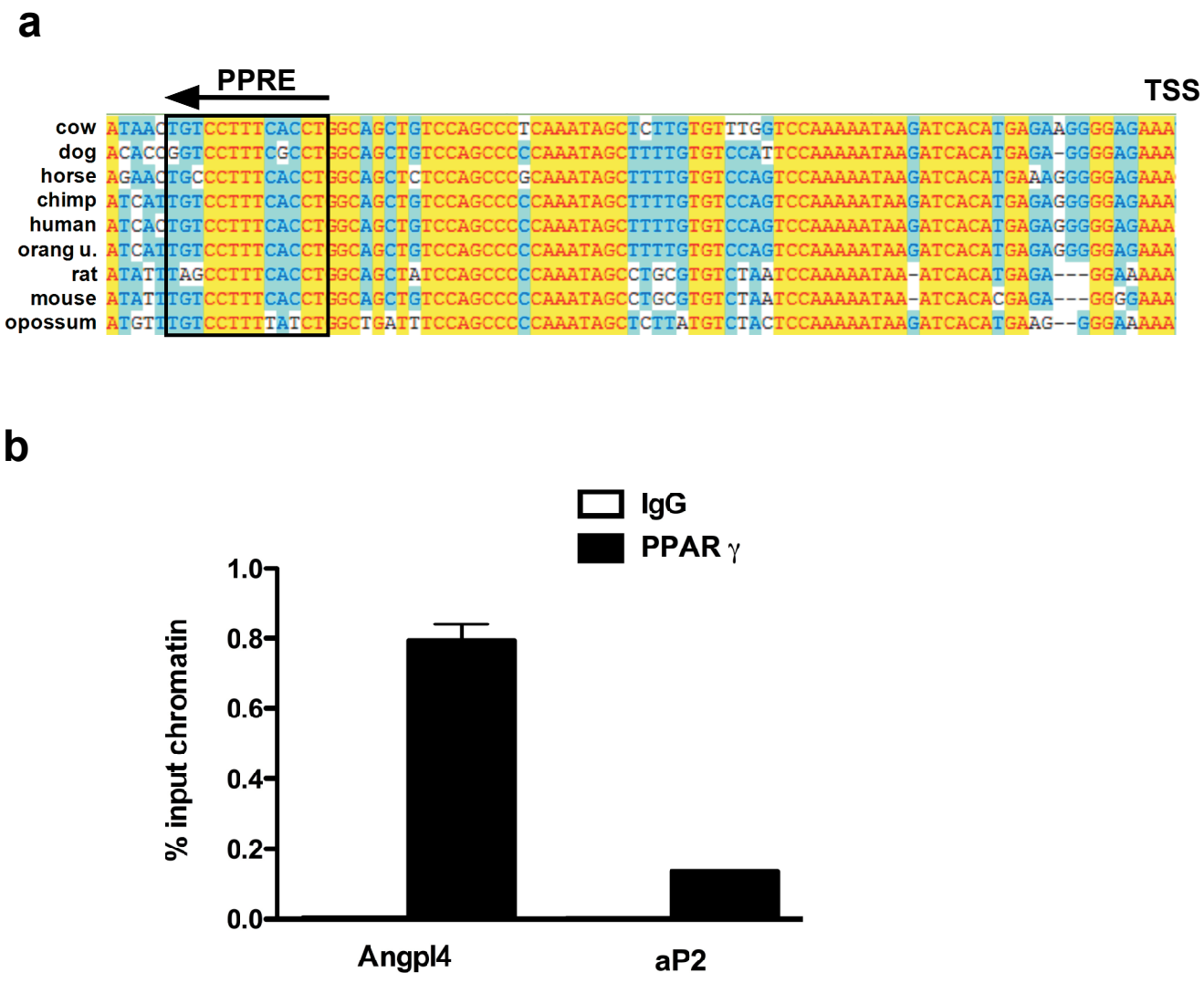
a



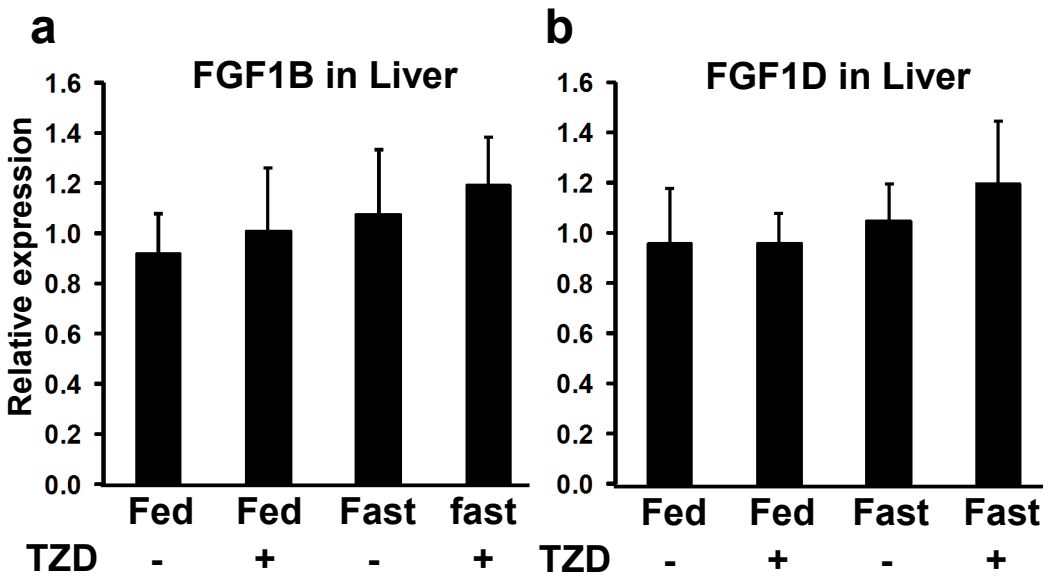
b



Supplementary Figure 6. Fluorescence microscopy of (a) brown adipose tissue and (b) subcutaneous WAT (iWAT) after perfusion with fluorescent microbeads reveals similar vascularisation in HFD-fed wild-type and FGF1-/- mice.
Red = fluorescent microbeads, Blue= DAPI staining.



Supplementary Figure 7. (a) Conserved PPAR response element (PPRE) within the proximal promoter of FGF1A relative to the transcription start site (TSS).
(b) Enrichment of known PPAR target genes (Angpl4 and aP2) in PPARγ ChIP experiment in 3T3-L1 cells.



Supplementary Figure 8. Liver levels of (a) FGF1B and (b) FGF1D mRNA are not affected by rosiglitazone (TZD, 5 mg/kg, 3 days p.o.) or o/n fasting (males, 6 months HFD, n = 5).